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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,993	09/18/2003	Raminderpal Singh	END920030032US1 (16704)	6599
7590 05/05/2005			EXAMINER	
Steven Fischman Scully, Scott, Murphy & Presser 400 Garden City Plaza Garden City, NY 11530			MANDALA, VICTOR A	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

#52

Office Action Summary

Application No.

10/665,993

Applicant(s)

SINGH ET AL.

Examiner

Victor A. Mandala Jr.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5, 6 and 9-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/18/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 5, 6, 9, 10, 15, 16, & 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/4/05. The examiner has reviewed the elected claims and finds claims 11-14, 17, & 18 to read on a nonelected species, hence withdrawn from further consideration. These claims include limitations of multiple pairs of coplanar conductors, which the elected species does not teach.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, & 8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent Application No. 2001/0040490 Tanaka.

1. Referring to claim 1, a vertically stacked coplanar transmission line structure for an integrated circuit (IC) chip defining a closed ground return path, (Paragraph 0035, where the Lines #22 are signal lines and in order for a signal to flow through a conductor there must be a

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potential applied to the ends of the conductor and where a circuit must be a closed circuit in order to operate), within the transmission line structure, comprising: a micro-strip pair of first, (Figure 1 #22a), and second vertically stacked coplanar conductors, (Figure 1 #22b), each comprising a metal layer, (Figure 1 #22a), a next metal layer down, (Figure 1 #22b), and an intermediate connecting via layer, (Figure 1 #23), in between the metal layer, (Figure 1 #22a), and the next metal layer down, (Figure 1 #22b).

2. Referring to claim 2, a transmission line structure, wherein each vertically stacked coplanar conductor comprises metal in the metal layer $m(i)$, (Figure 1 #22a), metal in the next metal layer down $m(i-1)$, (Figure 1 #22b), and metal in the intermediate connecting via layer, (Figure 1 #23).

3. Referring to claim 3, a transmission line structure, fabricated in upper metal layers of the IC chip, (lower metal layer #24b).

7. Referring to claim 7, a transmission line structure, wherein the micro-strip pair of first and second vertically stacked coplanar conductors comprise a differential positive and negative pair of transmission line conductors, (Paragraph 0035, where the Lines #22 are signal lines and in order for a signal to flow through a conductor there must be a potential applied to the ends of the conductor).

8. Referring to claim 8, a transmission line structure, wherein the micro-strip pair of first and second vertically stacked coplanar conductors comprise signal and ground transmission line conductors, (Paragraph 0035, where the Lines #22 are signal lines and in order for a signal to flow through a conductor there must be a potential applied to the ends of the conductor).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,033,982 Lopatin et al.

1. Referring to claim 1, a vertically stacked coplanar transmission line structure for an integrated circuit (IC) chip defining a closed ground return path, (Col. 8 Lines 35-36, where the Lines #40 have are signal lines and in order for a signal to flow through a conductor there must be a potential applied to the ends of the conductor and where a circuit must be a closed circuit in order to operate), within the transmission line structure, comprising: a micro-strip pair of first, (Figure 3 #42), and second vertically stacked coplanar conductors, (Figure 3 #44), each comprising a metal layer, (Figure 3 #42), a next metal layer down, (Figure 3 #44), and an intermediate connecting via layer, (Figure 3 #60), in between the metal layer, (Figure 3 #42), and the next metal layer down, (Figure 3 #44).
4. Referring to claim 4, a transmission line structure, wherein the intermediate connecting via layer comprises a single via bar, (Figure 3 #60), which extends across an entire width of the intermediate connecting via layer, (Figure 3 #60).

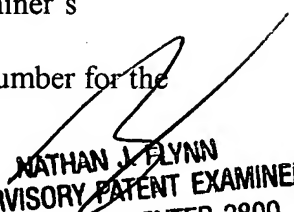
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor A. Mandala Jr. whose telephone number is (571) 272-1918. The examiner can normally be reached on Monday through Thursday from 8am till 6pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

VAMJ
4/20/05